

REMARKS

Claims 1, 6-10, and 21-25 are amended, and new claim 26 is added. Claims 1-26 are pending.

The amendments to the claims, and the added new claim 26, are based on the application as originally filed, so it is respectfully submitted that no new matter has been added.

In the office action, claims 1-21 were rejected under 35 U.S.C. § 112, second paragraph. Claims 1, 7-8, and 21 have been amended only to overcome the rejection under U.S.C. § 112, second paragraph, so reconsideration and withdrawal of the rejection are respectfully requested.

Claims 1-6, 14-17, and 20-25 were rejected under 35 U.S.C. § 102(b) in view of U.S. Patent Number 1,959,136 to Miller; claims 7-13 were rejected under 35 U.S.C. § 103(a) in view of Miller and U.S. Patent Number 2,300,024 to Terrell; claim 18 was rejected under 35 U.S.C. § 103(a) in view of Miller, Terrell, and U.S. Patent Number 4,610,292 to Hausemann et al.; and claim 19 was rejected under 35 U.S.C. § 103(a) in view of Miller, Terrell, and U.S. Patent Number 4,419,982 to Eckels.

The applicant respectfully traverses the rejection of the claims in view of the cited art. In particular, independent claim 1 is patentable over the cited art, since none of the cited art discloses or suggests the biasing means of the present invention which is along an extendable length of the flexible material portion, with the at least one biasing means providing for retraction of the flexible material portion from an extended state to a rolled-up state.

In an example embodiment, the biasing means is elongate and actually lies along or adjacent the length of the flexible material portion when the flexible material portion is in the extended position. In the prior art systems, a spring is used which is retained within the roller

and often biasing of the material into a rolled-up state is achieved by the action of spring tension pulling on chords which extend and are attached to the length of material.

Various differences between the invention of the present application and that of the cited application are described as follows:

A. U.S. Patent Number 1,959,136 to Miller

The system as described in Miller relies on a conventional spring-set roller which is mounted via conventional brackets secured at the top of the inner side of a window frame. A flexible screen material is attached to this roller. On the contrary, the present invention does not rely on a conventional spring set roller, nor brackets to attach the cover of the present invention to a surface. In fact, no roller, nor roller-bracket system, is described in the present application. Rather, in the present invention an elongate biasing means, which in this case is an elongate spring, is included on a length of flexible material. The inherent resilience of the spring coils the material into its rolled up state as the spring recoils. Therefore, the cited Miller patent does not disclose the invention of the present application.

B. U.S. Patent Number 2,300,024 to Terrell

The system as described in Terrell again relies on a conventional spring-set roller. While the method of attachment of replacement material onto the roller system by adhesives is similar to that as described in the present invention for attaching the cover to a surface, the cited Terrell patent does not disclose a length of material adapted to include a spring actually on the material and along the length of the material, as in the present invention in claim 1. Therefore, the cited Terrell patent does not disclose the invention of the present application.

C. U.S. Patent Number 4,610,292 to Hausemann et al.

The system as described in Hausemann et al. again relies on a conventional spring-set roller system for retaining the material in a rolled up form when the cover is not covering a window or the like. While the method of attachment of cover material onto an insulating material is similar to that as described in the present invention for securing the cover to a surface via hook-and-loop or hook-and-pile fasteners, such as commercially available "VELCRO", the cited Hausemann et al. patent does not disclose a length of material adapted to include a spring actually on the material and along the length of the material, as in the present invention in claim 1. Therefore, the cited Hausemann et al. patent does not disclose the invention of the present application.

D. U.S. Patent Number 4,419,982 to Eckels

The system as described in Eckels again relies on a conventional spring-set roller system for retaining the material in a rolled up form when the cover is not covering a window or the like. While the method of securing the cover to the surface via magnets is disclosed in the present application, the cited Eckels patent does not disclose a length of material adapted to include a spring actually on the material and along the length of the material, as in claim 1 of the present invention. Therefore, the cited Eckels patent does not disclose the invention of the present application.

E. General Discussion of the Cited Art

One having ordinary skill in the art would not look to the cited art, individually or in combination, for the present invention of claim 1, since all of the various prior art systems of the cited patents include the use of a roller, or similar guide, around which the unextended material cover is rolled. Such prior art systems may be bulky, and include a number of parts which may become damaged, or worn and require replacement. Further, for some of these prior art systems, the holder is a cumbersome object which requires being fitted to the structure, requires storage when not in use, and is not compact. Therefore, the abovementioned example and other available devices of the cited art, individually or in combination, do not address the problems which the present invention seeks to address.

On the contrary, the present invention of claim 1 provides a retractable cover in which the cover is simply a flexible material portion which in turn includes at least one biasing means. It is the biasing means of the present application that is self-retracting, because it has a permanent, or substantially permanent, coil memory to enable it to roll up on itself when released from an extended orientation. Further, the biasing means is located on, or in relation to the extendable length of, the flexible material portion. The location of the biasing means is determined by the preferred direction of retraction of the flexible material portion.

In preferred embodiments of the present invention, the spring is a varied force spring, so designed that when in an extended state, the spring will begin to retract with a lesser degree of force compared to when it is in a partially retracted state. As the spring retracts further, it will do so with greater force. This is an advantage when affixed to a flexible material, as the weight of material to be moved into a compact or retracted state, when in a fully extended state, is less than when the spring is partially retracted. When partially retracted, there is a greater weight of

material to retract, so the increased strength of the spring allows the retraction to continue unaided and substantially unimpeded.

Such features and advantages of the present invention are not disclosed or suggested by the cited art.

Further, the arrangement of the biasing means relative to the actual flexible material portion itself lends an added feature to the present invention in that the flexible material portion may have a shape other than a rectangular shape. For example, the retractable cover may be circular, triangular and so forth. The shape need not be impeded by the dimensions or requirements of a spring loaded roller, or of a holder for containing the retracted cover. The ability of the present invention to also allow the selection of a preferred flexible material from a range of suitable options, from canvas, to webbing, to rubber, to plastic material sheeting, of various thickness and so forth, enables the present invention to provide a degree of choice over the often more restrictive previous systems. Covers of different materials and weights may be accommodated by determination of the required coil spring energy characteristics of the biasing means used for implementing the present invention recited in claim 1.

The present invention also provides the advantage of allowing an existing covering for a structure to be made into a retractable form by the addition of biasing means. The biasing means could be attached by a bonding glue or be sewn in, or encased in a full or partial sheath that could either then be sewn onto the cover, or be incorporated into the design of the cover initially by folding the cover to form a sheath and sewing down each side of it to secure it in place. Alternatively, the biasing means may be held in place by the inclusion on the cover of multiple tabs, loops, or similar retaining means. The biasing means is then included on the cover by threading it under the tabs, through the loops, and so forth.

In some embodiments of the present invention, in which whole and/or partial sheath housings are included, the biasing means could include a zipper, a hook-and-pile system, buttoned or press stud arrangements, magnets, or similar mechanisms, running the length of the sheath portion so that the biasing means could be installed, checked, replaced, or maintained, or to increase the number of biasing means over and above the number originally used in order to increase the overall strength of the bias, or to reinforce the biasing means, if for example, the choice of application of the cover had changed and a stronger biasing means was required.

Therefore, having a simple system as provided by claim 1 of the present invention which is capable of being easily installed would benefit those users with pre-existing covers on their tents, for example, or with awnings or covers used for recreational vehicles, trailer or trucks, or shop frontages. The present invention of claim 1 would further benefit those wishing to install such a system as part of a new design.

In addition, the retractable cover of the present invention can be permanently or temporarily installed as it is less bulky than previous prior art systems, and also does not require complex mechanisms, or means that included multiple parts, to wrap up or unwrap the cover. Further, the present invention enables the cover to be partially or fully extended, even to create a diagonal opening; yet, the present invention can be used with covers of various shapes, sizes and weights.

The present invention also addresses the problems of storage of the cited art by removing the need to have enclosures, or the like, and it also addresses the problem of quick extension and retraction of covers, but in all cases the procedure does not require either complex mechanisms, roller systems, or a series of support systems, as in the prior art systems in the cited art.

Moreover, no prior art system or method in the cited art provides for a quickly retracting cover that is simple, compact, and in the case of a tent or awning, can be incorporated into the design of the tent or awning without substantially limiting the packing size. In addition, the systems of the cited art also lack the versatility of the present invention which provides for a cover which may be made of a range of flexible materials as applied to tents, awnings, boat covers, trailer or truck deck covers, and so forth, yet can still operate as required.

On this basis of the above discussion, since each patent in the cited art lacks every element and feature of claim 1, and since one having ordinary skill in the art would not look to any of the cited art for advantages and features the present invention of claim 1, it is respectfully submitted that the prior art cited by the examiner does not disclose or suggest the invention of claim 1 of the present application, so reconsideration and withdrawal of the rejection of claim 1 are respectfully requested.

Independent claim 21-23 are patentable over the cited art for the reasons set forth above for independent claim 1, since each of claims 21-23 recites biasing means along an extendable length of the flexible material portion.

In addition, claims 2-20 and 24-25 depend from independent claims 1 and 23, respectively, and so include the recitation of claims 1 and 23, respectively. Therefore, for the reasons set forth above, claims 2-20 and 24-25 are also patentable over the cited art.

Therefore, claims 1-25 are patentable over Miller, Terrell, Hausemann et al., and Eckels, individually or in combination, so reconsideration and withdrawal of the rejection of claims 1-25 are respectfully requested.

New claim 26 is added which recites a retractable cover having a flexible material portion; means for attachment; and at least one elongate biasing means operable between an

extended state and retracted state, with the at least one elongate biasing means being maintained by the means for attachment along an extendable length of the flexible material portion, and with the at least one biasing means providing for retraction of the flexible material portion from an extended state of the flexible material portion to a rolled-up state of the flexible material portions.

It is respectfully submitted that new claim 26 is patentable over the cited art, since none of the cited art discloses or suggests at least one elongate biasing means operable between an extended state and retracted state, with the at least one elongate biasing means being maintained by the means for attachment along an extendable length of the flexible material portion, and with the at least one biasing means providing for retraction of the flexible material portion from an extended state of the flexible material portion to a rolled-up state of the flexible material portions, as in new claim 26.

Therefore, entry and favorable consideration of new claim 26 are respectfully requested.

Accordingly, entry and approval of the present amendment and allowance of all pending claims are respectfully requested.

In case of any deficiencies in fees by the filing of the present amendment, the Commissioner is hereby authorized to charge such deficiencies in fees to Deposit Account Number 01-0035.

Respectfully submitted,



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